ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
JULY 12, 2007 – 1:00 P.M.
MULTI-MODAL CONFERENCE ROOM

Present:	L. Tibbits	J. Polasek	B. O'Brien
	M. Van Port Fleet	J. D. Culp	T. Anderson
	C. Roberts	T. Fudaly	C. Bleech
Absent:	J. Friend	J. W. Reincke	E. Burns
Guests:	G. Mayes	T. Palmer	D. Pawelec
	M. Eacker	R. VanPortfliet	K. Koepke

OLD BUSINESS

1. **Approval of the May 10, 2007, Meeting Minutes – L. Tibbits**

   The May 10, 2007, meeting minutes are approved.

2. **Michigan Roundabout Guide (See March 8, 2007, Meeting Minutes, New Business, Item 5) – T. Palmer**

   Michigan does not have a guidance document for roundabouts. A roundabout committee was formed to develop a guidance document intended to educate staff on the basic elements of roundabouts, and where a roundabout application may benefit or improve system operations. DLZ Michigan, Inc. was hired to prepare the guide, which will ultimately become a part of an intersection guidance document, also being developed. EOC reviewed the draft document and approved the work to-date. Additional required changes include reformatting, the addition of a section on maintaining traffic, and other minor revisions. The document, once approved, will be titled *Interim Roundabout Guide*.

   ACTION: EOC approves the work to-date with minor revisions and reformatting. A revised copy of the guide will be sent to all EOC members for review when complete.

NEW BUSINESS

1. **Winter Operations – T. Anderson**

   The current policy for winter maintenance has been in place since August 27, 1977, and classifies trunkline routes by average daily traffic volumes (ADT). Based on the ADT, every route was given a green, yellow or red classification with defined levels of service. The department has undergone a number of organizational and operational changes since 1977 that change the way we do business, and our approach to addressing customer service needs. In addition, costs have continually increased due to system expansion and customers' expectations, while at the same time resources have decreased. As a result, the current

policies do not provide the flexibility and methodology needed to develop a practical local/regional winter maintenance plan.

The Winter Operations Team was formed to develop a new winter operations policy that focuses on achieving consistency in winter maintenance. Motorists have certain expectations for uniform roadway conditions during a winter event. However, they often meet differing levels of service as jurisdictional boundaries are crossed and responsibility for maintenance moves from one agency to another. The new policy addresses winter maintenance needs from a corridor approach, based on system importance with the goal of uniform roadway conditions across jurisdictional boundaries.

The new policy separates trunkline routes into two categories: Significant Routes and Local Service Routes. Significant Routes are generally defined as routes on the National Highway System and state arterial system, and are identified through region analysis as having significant importance and connectivity. Significant Routes will be shown on maps in orange to signify Priority Service Level I. Local Service Routes within a region are defined as a trunkline route with a lower level of importance, such as connecting routes between significant routes. Local Service Routes will be shown on maps in blue to signify Priority Service Level II. Some routes may not meet either definition and will need to be classified by the region. Overall balancing of the system from a statewide perspective will be done through discussions between regions, the Maintenance Division, and local agencies to assure consistency.

Service conditions have been defined for both routes. For Priority Service Level I routes, the goal is to provide a pavement surface "generally bare of ice and snow" during the winter event. For Priority Service Level II, the goal is to provide a pavement surface "generally bare of ice and snow" in the center portion of the roadway, wide enough for one wheel track in each direction. Clearing the pavement bare of ice and snow over its entire width will be accomplished as soon as reasonably possible after the winter storm event. Conditions may be such that the desired level of service is not always attainable. Such conditions may include limited visibility for operators, length and severity of the storm, budgetary restrictions, and extreme conditions that compromise the safety of the workers.

ACTION: The EOC approves the *Winter Maintenance Operations Guidelines* effective for the winter of 2007/2008. The existing policy, dated August 27, 1977, is rescinded. The Winter Operations Team shall develop a section titled “Winter Operations" to add to the county maintenance contract. This section will link the requirements of the *Winter Operations Guidelines* to the county maintenance contract to assure the planning process is carried out as described. Ongoing data collection to help determine the effectiveness of the new policy shall continue. A communication plan will be developed that will show how a new planning process will help coordinate winter operations, improve services, and reduce costs. The Maintenance Division will develop a quality assurance plan to assure levels of service are consistent statewide. The EOC approves the continued efforts of re-organizing the central office structure to better support the regions. With this approval, the Maintenance Division will send out a Winter Operations package with implementation instructions.

2. **Sight Distance Guidelines – M. Bott and I. Gedaoun**

This item is postponed until the next meeting.

3. **Revised Contractor Claims Process – R. VanPortfliet and G. Johnson**

The current process for the resolution of contractor claims has not been reviewed or updated since October 1, 1997. The claims process is described in several different documents, including the *2003 Standard Specifications for Construction*, the *Construction Manual*, Bureau of Highways instructional memorandums (BOH IM), and memorandums. The department has undergone major organizational and operational changes since the last revision. As a result, the current process is not in alignment with current department practices. The Michigan Infrastructure and Transportation Association (MITA) expressed concerns that the current process is not timely or consistent.

The department and MITA formed a team to develop a collaborative and comprehensive construction claims process that provides a systematic approach to the tracking and resolution of claims. The new process incorporates all previous documents and establishes a process requiring an increased level of detail, accountability, and urgency by the contractor and the department alike. The new process reduces the number of steps and places strict timelines for response by both the contractor and the department, which should expedite the resolution of claims. The contractor must submit a "Claims Content Certification" form when submitting the claim to the project level engineer, which certifies the validity and accuracy of the claim. A database is being developed for department use to track the progress of all claims.

ACTION: The EOC approves the new construction claims process with minor editorial revisions. The Team will distribute the new process through a BOH IM. The new process will take effect on the date of the BOH IM and will be incorporated into the next revision of the *Construction Manual*. The Team will also develop a claims database to track the claims at specific milestones identified in the new process.

4. **Standard 16” Open Graded Drainage Course Aggregate Base for Metro Region – C. Bleech, Pavement Committee**

The Metro Region has been using an alternate aggregate base design for the past several years on freeway reconstruction projects. They have been using 16" of open graded drainage course (OGDC) in lieu of the standard 6" OGDC on sand subbase. The 16" OGDC provides a constructability advantage in areas with limited right-of-way because construction equipment can travel on the base material with minimal repair needed before paving. In addition, the 16" OGDC provides enhanced drainage characteristics, which is a benefit in the Metro Region due to the generally poor soil conditions and the large number of depressed freeways. The 16" OGDC also provides enhanced base support that will provide a longer service life. It has been determined that there is minimal increased cost in constructing this section compared to the current standard cross section. This has been confirmed by contractors proposing, at no additional cost to MDOT, a change from the standard cross section to the 16" OGDC section on several active Metro Region construction projects. The Metro Region recommends expanding the use of this cross section to include non-freeway reconstruction projects.

ACTION: The EOC approves the use of the 16" OGDC cross section on all freeway and non-freeway reconstruction projects in the Metro Region. The Pavement Committee will develop criteria for this cross section that are not necessarily based on region boundaries, but on existing conditions and proposed use. Typical cross sections will be developed and incorporated into Appendix 6-A of the *Road Design Manual*, as necessary.

5. **Pavement Selections – B. Krom**

a. US-24 Reconstruction: CS 82051, JN 46277

The reconstruction alternates considered were a hot mix asphalt (HMA) pavement (Alternate 1 – equivalent uniform annual cost [EUAC] $77,811/mile) and a jointed plain concrete pavement (Alternate 2 - EUAC $86,358/mile). A life cycle cost analysis was performed and Alternate 1 was approved based on having the lowest EUAC. The pavement design and cost analysis are as follows:

1.5” ..... HMA, 5E3, Top Course (mainline)
2” ..... HMA, 4E3, Leveling Course (mainline)
3.75” ..... HMA, 3E3, Base Course (mainline)
16” ..... Open-Graded Drainage Course (mainline)
Geotextile Separator
8” ..... Sand Subbase
6” dia. ..... Open-Graded Underdrain System
31.25” ..... Total Section Thickness

Present Value Initial Construction Cost $1,162,333/mile
Present Value Initial User Cost $137,844/mile
Present Value Maintenance Cost $224,961/mile
Equivalent Uniform Annual Cost $77,811/mile

b. I-75 Rehabilitation: CS 16091 and 16092, JN 75001

The reconstruction alternates considered were an HMA pavement over rubblized concrete (Alternate 1 – EUAC $38,467/directional mile) and a jointed plain concrete pavement overlay (Alternate 2 - EUAC $32,595/directional mile). A life cycle cost analysis was performed and Alternate 2 was approved based on having the lowest EUAC. The pavement design and cost analysis are as follows:

6” ..... Jointed Plain Concrete Pavement w/12’ joint spacing (mainline & shoulders)
1” ..... HMA Separator Layer (mainline & shoulders)
9” ..... Repaired Existing JRCP
Existing Base & Subbase
7” ..... Total Thickness

Present Value Initial Construction Cost ..... $443,508/directional mile
Present Value Initial User Cost ..... $25,329/directional mile
Present Value Maintenance Cost ..... $37,595/directional mile
Equivalent Uniform Annual Cost ..... $32,853/directional mile

6. **2010 Standard Specifications for Construction – D. Pawelec**

Due to a number of changes in construction practices and policies, it is time to begin the work of revising the *2003 Standard Specifications for Construction*. It is expected this effort will require approximately three years to complete, which will result in a new book in 2010. It is anticipated that consulting services will be used to assist with the revision by providing editing, formatting, and consistency reviews. The process will begin immediately.

ACTION: The EOC approves the request to begin work on revising the *2003 Standard Specifications for Construction*. Approval is given to explore the options of using consultant services to support the effort. Approval of a timeline that results in release of the new specifications in 2010 is approved. An Issues Workshop will be conducted with industry partners and stakeholders to identify issues and concerns with the current specifications. An impasse panel will be established to resolve issues that are not able to be resolved at the committee level.

(Signed Copy on File at C&T)
Brenda J. O'Brien, Secretary
Engineering Operations Committee

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cc:

K. Steudle	S. Mortel	J. Steele (FHWA)
J. Shinn	D. Jackson	R. Brenke (ACEC)
L. Hank	W. Tansil	G. Bukoski (MITA)
EOC Members	D. Wresinski	D. DeGraaf (MCPA)
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